

REMARKS

Examiner Interview

Applicant thanks the Examiner for the courtesy of the telephone interview on August 15, 2003 in which the Examiner informed Applicant's counsel that the present Office Action had already been mailed.

Amendments

Amendments to the Claims

Applicant has amended the claims to more particularly point out that at least one of the erroneous coefficient is due to transmission of the coefficients, and further to clarify that the predicted and partial decodings are of pixel values. No new matter has been added as a result of these amendments.

Rejections

Rejections under 35 U.S.C. § 103

In response to Applicant's statement on July 17, 2003 that U.S. Patent 6,078,616 to Ozcelik et al. was unavailable as prior art under 35 U.S.C. § 103(c), the Examiner withdrew the Ozcelik reference. Applicant's counsel erroneously believed that Ozcelik was prior art under 35 U.S.C. § 102(e). Applicant regrets the error and any confusion it may have engendered. Because Ozcelik is not disqualified under § 103(c), Applicant argues below for the patentability of claims 1-10 over the previously cited combination of Jeon et al. (U.S. Patent 5,937,101) and Ozcelik, and for the patentability of claims 11-15 over the previous cited combination of Jeon, Ozcelik, and Florencio et al. (U.S. Patent 6,373,894 B1).

Claims 1-10

Rejections in Office Action dated August 14, 2003

Claims 1-10 stand rejected under 35 U.S.C. § 103(b) as being obvious over Jeon in view of Knee (U.S. Patent 6,285,716 B1). Knee qualifies as prior art only under 35 U.S.C. § 102(e) because it issued after Applicant's filing date. Applicant does not admit that Knee is prior art and reserves the right to swear behind the reference at a later date.

Nonetheless, Applicant respectfully submits that the combination is improper and furthermore does not teach each and every element of the invention as claimed in claims 1-10.

Jeon discloses the post-processing of discrete cosign transform (DCT) coefficients that adds adjustment values to the coefficients to recover the information lost when the data represented by the coefficients was quantized. Different adjustment values are used based on the information contained in adjacent blocks of coefficients, but every coefficient in a block is adjusted because Jeon considers every coefficient inaccurate due to the lossy nature of quantization.

Knee discloses the partial decoding that separates a compressed video stream into a stream of coefficients that represent the video and a stream of side information that controls the encoding and decoding of the video. The resulting coefficient stream may optionally be re-quantized at a different bit rate for subsequent transmission. Knee does not teach or suggest making any distinction between erroneous and non-erroneous coefficients in the coefficient stream. Knee states that the side information may include error concealment information, such as a flag, but contains no disclosure that describes the use of such information.

The Examiner asserts that it would be obvious to one of skill in the art in employing the decoding taught by Jeon to incorporate the partial decoding taught by Knee "so as to create partial decoding where there are no errors among received coefficients for an efficient fast processing decoding time." However, Jeon considers each and every coefficient to be in error because of quantization losses and therefore Jeon contains no suggestion that the combination urged by the Examiner would be advantageous. Furthermore, the Examiner has mis-interpreted Knee. Knee does not create partial decodings from non-erroneous coefficients, Knee partially decodes a video stream into coefficients:

Decoder 14 is a partial decoder, which means that its main output CP is not a fully decoded picture signal but a signal decoded to some intermediate stage, here for example DCT coefficients. (Knee: col. 4, lines 49-52).

Moreover, Knee does not distinguish among erroneous and non-erroneous coefficients when decoding the video stream into the coefficients. Therefore, there is no disclosure in Knee that supports the Examiner's stated motivation for the combination. For the same

reasons, there is no motivation in the art as a whole for the combination. Because the combination of Jeon and Knee is improperly motivated, the Examiner has failed to state a *prima facie* case of obviousness with respect to claims 1-10.

Even assuming, *arguendo*, that the combination is proper, the combination does not teach each and every limitation of Applicant's invention as claimed in claims 1-10. In particular, Applicant's invention creates a predicted decoding for erroneous coefficients and a partial decoding for the non-erroneous coefficients. Because neither Jeon nor Knee, nor the combination, distinguish between erroneous coefficients and non-erroneous coefficients, the combination cannot be properly interpreted as teaching Applicant's claimed invention that does. Furthermore, the Examiner admits that Jeon does not teach partial decodings using received values of non-erroneous coefficients as claimed by Applicant and is relying on Knee for that element. However, Knee cannot be properly interpreted as teaching Applicant's claimed partial decodings using received values of non-erroneous coefficients because, *intra alia*, Knee's partial decoding creates the coefficients, it does not use the values of the stream of coefficients to partially decode the video. Additionally, Applicant's claims as amended contain the limitation that at least one coefficient in the block is erroneous due to transmission of the coefficients. Jeon's coefficients are inaccurate due to quantization. Knee does not disclose that the error concealment information indicates that coefficients are erroneous due to transmission. Thus, either Jeon nor Knee, nor the combination, can be properly interpreted as teaching or suggesting Applicant's added limitation.

Therefore, the combination of Jeon and Knee cannot render obvious Applicant's invention as claimed in claim 1-10, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(b) over the combination.

Rejections in Office Action dated June 9, 2003

Claims 1-10 were rejected under 35 U.S.C. § 103(a) over the combination of Jeon and Ozcelik. Applicant respectfully submits that the combination is improper and furthermore does not teach each and every element of the invention as claimed in claims 1-10.

Ozcelik discloses a partial decoding of a video bitstream that extracts certain types of data, such as headers, from the video stream. Ozcelik does not teach or suggest that coefficients are used to partially decode the video.

The motivation stated by the Examiner for the combination of Jeon and Ozcelik is substantially similar to that stated for the combination of Jeon and Knee, and thus fails for the same reasons. In particular, because Jeon considers each and every coefficient to be in error because of quantization losses, Jeon contains no suggestion that the combination urged by the Examiner would be advantageous. Furthermore, Ozcelik's partial decoding is unrelated to coefficients, either erroneous or not, while Jeon is directed to the adjustment of inaccurate coefficients. Therefore, there is no suggestion in Ozcelik that would motivate the combination. Moreover, the combination cannot be motivated by the art as a whole for at least the same reasons.

Additionally, Ozcelik does not disclose partial decodings using received values of non-erroneous coefficients as claimed by Applicant. Since the Examiner admits that Jeon does not disclose this claimed element, the combination does not teach each and every limitation of Applicant's invention.

Therefore, the combination of Jeon and Ozcelik cannot render obvious Applicant's invention as claimed in claim 1-10, and Applicant respectfully submits that claims 1-10 are patentable over the combination.

Claims 11-15

Rejections in Office Action dated August 14, 2003

Claims 11-15 stand rejected under 35 U.S.C. § 103(b) as being obvious over the combination of Jeon, Knee and Florencio. Applicant respectfully submits that the combination is improper and furthermore does not teach each and every element of the invention as claimed in claims 11-15.

Independent claim 11 recites substantially the same elements as independent claims 1 and 6. Therefore, as discussed above for claims 1 and 6, the combination of Jeon and Knee does not disclose each and every limitation of claim 11, so Florencio must supply the missing elements to have a *prima facie* case of obviousness.

Florencio teaches estimating transform coefficients based on pre-determined classes of signals. Florencio does not teach partial and predicted decodings using coefficient values or using the partial and predicted decodings within a block to update the estimated transform coefficient as claimed by Applicant in claims 11-15. Therefore, the combination of Jeon, Knee and Florencio cannot be properly interpreted as doing so. Furthermore, the base combination of Jeon and Knee is improper and adding Florencio to the base combination does not cure the problem. Accordingly, the combination of Jeon, Knee and Florencio is also improper.

Therefore, the combination of Jeon, Knee and Florencio cannot render obvious Applicant's invention as claimed in claim 11-15 and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

Rejections in Office Action dated June 9, 2003

Claims 11-15 were rejected under 35 U.S.C. § 103(a) over the combination of Jeon, Ozcelik and Florencio. Applicant respectfully submits that the combination is improper and furthermore does not teach each and every element of the invention as claimed in claims 11-15.

As stated above the combination of Jeon and Ozcelik does not render Applicant's independent claims 1 and 6 obvious. Because Florencio does not fill the gap in the base combination of Jeon and Ozcelik, and because the combination of Jeon, Ozcelik and Florencio is improper since the base combination is improper, Applicant respectfully submits that claims 11-15 are patentable over the combination of Jeon, Ozcelik and Florencio.

SUMMARY

Claims 1-15 are currently pending. In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Sue Holloway at (408) 720-3476.

Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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